

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Michael Cafaro, et al.

Serial No.: 10/821,109

Filed: April 8, 2004

For: ION CURLING IRON AND  
STRAIGHTENER

Group Art Unit: 3732

Examiner: Manahan, T.

Atty. Dkt. No.: HEL177/4-10US

Confirmation No. 8231

**REQUEST FOR EXTENSION OF TIME AND RESPONSE TO  
OFFICE ACTION OF JUNE 19, 2007**

**VIA EFS-WEB  
ELECTRONIC FILING**

**MAIL STOP AMENDMENT**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Applicants respectfully request a one-month extension-of-time to respond to the outstanding office action in the above identified patent application up to and including October 19, 2007. Please charge the \$120.00 extension-of-time fee to Deposit Account No. 22-0365/HEL177/78001. If any additional fees are required, the Commissioner is authorized to charge such fees (or to credit any overpayment) to Deposit Account No. 22-0365/HEL177/78001.

The present paper is filed in response to an Office Action of June 19, 2007, the date for response for which is October 19, 2007, including one-month extension.

## REMARKS

### Status of the Claims

Claims 1-7 and 9-13 are presently pending in this application.

### Claim rejections under 35 U.S.C. § 103

The Office Action rejects claims 1, 2, 4, 7, 9, and 10 as being unpatentable over Leung (U.S. Patent Publication No. 2003/0052115) in view of Nakagawa et. al. (U.S. Patent Publication 2002/0189128).

The Leung reference describes a device based on completely different principal than the one disclosed in the present invention. Leung is not a modified curling iron as in the present invention, but is rather a completely different type of curling iron, namely a “hot air curling iron.” This change is significant as it shows the different principle of operation between the two devices. The Leung reference operates by blowing hot air over the hair so that it may eventually be curled. However, it does not in fact “heat[] the hair of a user by conduction of heat from a heated surface to the hair of the user” as required by the present invention for Claims 1-4. Similarly, with respect to Claims 7, 9, and 10, the Leung reference also lacks a “heater contained in the barrel for heating the barrel during use.” The purpose of Leung is to blow hot air onto the hair for the dual purposes of curling and drying the hair. The Leung reference makes no mention of the heat-conductive properties of the barrel because those properties are irrelevant to its purpose which is to propel hot air out of the barrel and not to heat the barrel as in the present invention.

The Leung reference explicitly confirms that it does not “heat hair by conduction of heat from a heated surface.” Leung, ¶0028. Applicants respectfully submit that the Examiner’s reliance on this paragraph is contrary to the Leung reference’s explicit teaching. Office Action,

p. 2. The Leung reference states that, “The heat from the heater 216 is drawn to heat sink 208, and preferably, via heat air apertures 307 to the exterior of the barrel portion 300 for styling hair.” Leung, ¶0028 (emphasis added). Leung teaches that heat is transferred to hair via holes/apertures in the barrel, and not through hair contacting the barrel. The second sentence of that paragraph further confirms that the apertures allow “heat to be emitted from the interior of the barrel and ultimately to the hair of a user.” *Id.* In fact, the Leung reference expressly distinguishes itself from curling irons that do heat the barrel. *Id.*, ¶0005. Consequently, Applicants must respectfully submit that Leung does not teach every limitation of the present invention.

The Nakagawa reference does not supply the claimed limitations missing from the Leung reference. The Nakagawa reference is directed towards a hair dryer, which, like Leung, does not teach “conduction of heat from a heated surface to the hair of a user. Additionally, with respect to Claims 7, 9, and 10, neither the Nakagawa reference nor the Leung reference makes any reference to “a heater contained in the barrel for heating the barrel during use” as required by these claims. Therefore, the combination of the Nakagawa reference and the Leung reference does not result in the present invention.

For at least the above reasons, Applicants respectively request that the Examiner withdraw the § 103 rejection based on Leung in light of Nakagawa with respect to Claims 1, 2, 4, 7, 9 and 10 because the combination of references lacks at least one claimed feature.

The Office Action rejects claims 1, 3-6, and 11-13 as being unpatentable over Cha (United States Patent Publication No. 2005/0056631) in view of Nakagawa et al. (United States. Patent Publication No. 2002/0189128).

A rejection under 35 U.S.C. § 103(a) can be overcome by antedating either reference as available prior art under 35 U.S.C. § 102. MPEP 2141.01. Cha was published after the filing date of this application, therefore it is not part of the prior art under 35 U.S.C. § 102(a) or (b). A prior art rejection based on 35 U.S.C. § 102(e) can be overcome by submitting an affidavit or declaration under 37 CFR 1.131. MPEP 2136.05. Applicants submit the attached declaration of Michael CaFaro establishing invention of the subject matter of the rejected claims in the United States prior to the filing date of the Cha reference. Therefore, the Cha reference cannot form the basis of a rejection under 35 U.S.C. § 103(a). MPEP 2141.01.

Based on the submission of the attached declaration, the Applicants respectfully request that the rejection of the claims under 35 U.S.C. § 103(a) with respect to Cha be withdrawn.

#### **SUMMARY OF RESPONSE**

It is believed that in light of the attached declaration and remarks above, the application is in condition for allowance. Accordingly, reconsideration and favorable action in this case are respectfully requested. If the Examiner believes that a telephone conference would expedite the prosecution of the case, the Examiner is invited to call the undersigned at the number below.

Respectfully submitted,

/s/ R. Floyd Walker

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## Ion Hair Styling Curling Iron and Flat Straightener

A hair styling curling iron and flat straightener with fast heat-up performance which also generates negative ion airflow. The negative ion airflow system includes an ion generator whose output is coupled between positive and negative electrode arrays. Preferably, the positive electrode array is pointed electrodes and the negative electrode array includes annular-like electrodes having a central opening coaxial with the associated pointed electrode. Preferably, the annular-like electrodes are formed from a single sheet of metal by extrusion or punching such that the surface of the annular-like electrodes is smooth and continuous through the opening through which the airflows. The negative ion system further includes a small DC motor with a fan that creates airflow to safely push the negative ions out the curling iron barrel or the flat plates of the straightener via small openings and safely onto the users' hair.

The hair styling curling iron also incorporates a unique feature through its flipper/tong design. This flipper/tong design incorporates the flipper/tong within the handle, eliminating the previous cumbersome and bulky thumb grip design. This new flipper/tong design will prevent the user from having to extend their fingers and thumb in order to have to actuate the flipper. It will also prevent the user from burning their fingers and thumb on previous design.









